

Application No. 09/709,787  
Reply to Final Office Action of Mar 20, 2006

Patent  
Attorney Docket No. 89003-6

## **II. REMARKS/ARGUMENTS**

### **A. Summary of Amendments**

The present application still contains 53 claims.

Claims 155, 186, 187, 195 and 216 have been amended in order to better define the subject matter being claimed.

The remaining claims remain the same.

### **B. Summary of Rejection and Response under 35 USC §103(a)**

#### **i) Claims 155, 160-163, 168-172, 180-183, 185-187, 190-200, 203-206 and 210-219**

In the Office Action, the Examiner has rejected claims 155, 160-163, 168-172, 180-183, 185-187, 190-200, 203-206 and 210-219 under 35 USC §103(a) as being unpatentable over U.S. Patent Publication 2001/0034754 (hereafter to be referred to as Elwahab) in view of U.S. Patent 5,706,191 (hereafter to be referred to as Bassett et al.)

The Applicant respectfully submits that claims 155, 160-163, 168-172, 180-183, 185-187, 190-200, 203-206 and 210-219, as they now stand, are in condition for allowance over the references cited by the Examiner.

#### **CLAIM 155**

For ease of reference, independent claim 155 has been reproduced herein below.

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A spa control system, comprising:

- A) a heating module suitable for heating water;
- B) at least one water pump suitable for pumping water through said heating module;
- C) a spa controller adapted for controlling said heating module and said water pump at least in part on the basis of software installed on said spa controller;
- D) an interface signal converter in communication with said spa controller, said interface signal converter being operative for:
  - establishing a communications link with a remote computer;
  - receiving communication signals conveying software components over the communications link, said software components comprising updates to software already installed on said spa controller;
  - communicating said software components to said spa controller for updating the software installed on said spa controller;

wherein said interface signal converter converts communication signals received from the remote computer via said communications link and directs the converted signals to said spa controller, and wherein said interface signal converter converts signals from said spa controller to be communicated to the remote computer via said communications link.

The Applicant respectfully submits that the references cited by the Examiner do not disclose, teach or suggest the above-emphasized limitations of independent claim 155. More specifically, neither Elwahab nor Bassett et al. disclose a spa control system comprising a heating module, at least one water pump and a spa controller for controlling these two components. Nor does Elwahab or Bassett et al. disclose an interface signal converter for "receiving communication signals conveying software components over the communications link, said software components comprising updates to software already installed on said spa controller" [emphasis added].

Firstly, the Applicant respectfully submits that neither Elwahab, nor Bassett et al. disclose a spa control system comprising "at least one water pump suitable for pumping water through said heating module" or "a spa controller adapted for controlling said heating module and said water pump at least in part on the basis of software installed on said spa controller". More specifically, Elwahab doesn't disclose anything to do with a spa control system, and as such cannot disclose the above spa components. Furthermore, Bassett et al. simply discloses that it is known to have dedicated devices for controlling a spa pool heater. Nowhere in

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this reference is there anything disclosed about controlling anything other than the spa heater. Bassett et al. does not disclose a spa control system having a heating module, a water pump and a spa controller for controlling the two. Given that Bassett et al. relates to general automation systems, and not spa controllers, this is not surprising. As such, neither Elwahab nor Bassett et al. disclose the above-emphasized limitation of independent claim 155.

Secondly, with regard to the limitations of "receiving communication signals comprising updates to software already installed on the spa controller", and "communicating said software components to said spa controller for updating the software installed on said spa controller" the Applicant respectfully submits that these limitations are also absent from both Elwahab and Bassett et al.

With regard to Elwahab, the Applicant respectfully submits that this reference discloses a customer premises gateway (CPG) that allows remote access and control to a plurality of "smart devices", such as smart refrigerators and telephones. As indicated on page 3 of the office action, it is the Examiner's position that the "smart device" of Elwahab could be set up as a spa controller. However, nowhere does Elwahab disclose anything about receiving updates to software already installed on one or more of the smart devices. Instead, as indicated on page 8, lines 23-25 of Elwahab, which is the portion relied upon by the Examiner to show that the above-emphasized limitation is taught, it is expressly indicated that "additional smart device XML pages, or updates for existing smart device XML pages in use at a CPG 10, can be obtained...from any service provider". As indicated on the same page at lines 18-19, "the smart device XML pages are maintained by the embedded web server 12 at the CPG 10". As such, Elwahab specifically teaches performing updates to software contained at the CPG, and not to software already installed on a specific "smart device", such as a spa controller. Accordingly, the Applicant respectfully submits that Elwahab does not teach the above-emphasized limitation of independent claim 155.

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With respect to Bassett et al., the Applicant respectfully submits that this reference simply relates to an automated management and communication system for controlling an appliance. Nowhere does this reference disclose anything about receiving software component information for updating software contained at an appliance, let alone at a spa controller. As such, the Applicant respectfully submits that this reference does not teach the above-emphasized limitation either.

In accordance with §2142 of the MPEP, in order to establish a *prima facie* case of obviousness, the combination of references cited by the Examiner must teach all the limitations found in the claim. Since neither Elwahab nor Bassett et al. disclose either of the above emphasized limitations of independent claim 155, the Applicant respectfully submits that the combination of these references fails to establish a *prima facie* case of obviousness as per §2142 of the MPEP. As such, independent claim 155, as amended, is now believed to be novel and non-obvious over the references cited by the Examiner. The Examiner is respectfully requested to withdraw the rejection to independent claim 155.

Claims 158-172, 180-183 and 185 depend from independent claim 155, and as such incorporate by reference all the limitations contained therein, including the two above-emphasized limitations which have been shown to be absent from both Elwahab and Bassett et al. As such, the Applicant respectfully submits that claims 158-172, 180-183 and 185 are also novel and non-obvious as being dependent upon an allowable base claim.

#### **CLAIM 186**

For ease of reference, independent claim 186 has been reproduced herein below.

A spa control system, comprising:

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- A) heating means suitable for heating water;  
B) water pump means suitable for pumping water through said heating means;  
C) a spa controller means adapted for controlling said heating means and said water pumping means at least in part on the basis of software installed on said spa controller means,  
D) an interface signal converter means in communication with said spa controller means, said interface signal converter means being operative for:
- establishing a communications link with a remote computer;
  - receiving communication signals conveying software components over the communications link, said software components comprising updates to software already installed on said spa controller means;
  - communicating said software components to said spa controller means for updating the software installed on said spa controller means;
- wherein said interface signal converter means converts communication signals received from the remote computer means via said communications link, and wherein said interface signal converter means converts signals from said spa controller means to be communicated to said remote computer means via the communications link.

For the same reasons as those presented above with respect to independent claim 155, the Applicant respectfully submits that neither Elwahab nor Bassett et al. disclose, teach or suggest the above emphasized limitations of independent claim 186. As such, these references fail to establish a prima facie case of obviousness, as per §2142 of the MPEP.

Accordingly, the Examiner is respectfully requested to withdraw the rejection to independent claim 186.

#### **CLAIM 187**

For ease of reference, independent claim 187 has been reproduced herein below.

- A spa control system, comprising:
- A) a heating module suitable for heating water;  
B) at least one water pump suitable for pumping water through said heating module;  
C) a spa controller adapted for controlling said heating module and said water pump at least in part on the basis of software installed on said spa controller;  
D) an interface signal converter in communication with said spa controller, said interface signal converter being operative for:
- establishing a communications link with a remote computer;
  - receiving data comprising a record of errors from said spa controller;

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- transmitting a signal conveying the record of errors to the remote computer over said communications link;  
wherein said interface signal converter converts communication signals transferred from the remote computer via said communications link and directs the converted signals to said spa controller, and wherein said interface signal converter converts signals from said spa controller to be communicated to the remote computer via said communications link.

The Applicant respectfully submits that the references cited by the Examiner do not disclose, teach or suggest the above-emphasized limitations of independent claim 187. More specifically, neither Elwahab nor Bassett et al. disclose a spa control system comprising a heating module, at least one water pump and a spa controller for controlling these two components.

For the same reasons as those presented above with respect to independent claim 155, the Applicant respectfully submits that neither Elwahab nor Bassett et al. disclose a spa control system comprising "at least one water pump suitable for pumping water through said heating module" or "a spa controller adapted for controlling said heating module and said water pump at least in part on the basis of software installed on said spa controller". Accordingly, the Applicant respectfully submits that the combination of these references fails to establish a prima facie case of obviousness as per §2142 of the MPEP. The Examiner is respectfully requested to withdraw the rejection to independent claim 187.

Claims 190-194 depend from independent claim 187, and as such incorporate by reference all the limitations contained therein, including the above-emphasized limitations which have been shown to be absent from both Elwahab and Bassett et al. As such, the Applicant respectfully submits that claims 190-194 are also novel and non-obvious as being dependent upon an allowable base claim.

#### **CLAIM 195**

For ease of reference, independent claim 195 has been reproduced herein below.

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- A spa control system comprising:
- A) a heating module suitable for heating water;
  - B) at least one water pump suitable for pumping water through said heating module;
  - C) a spa controller adapted for controlling said heating module and said water pump at least in part on the basis of software installed on said spa controller;
  - D) an interface signal converter in communication with said spa controller, said interface signal converter being operative for exchanging signals with a hand-portable remote computer over a wireless communications link, wherein the signals received from said hand-portable remote computer include software components comprising updates to software already installed on said spa controller, said interface signal converter being further operative for communicating said software components to said spa controller for updating the software installed on said spa controller.

For the same reasons as those presented above with respect to independent claim 155, the Applicant respectfully submits that neither Elwahab nor Bassett et al. disclose, teach or suggest the above emphasized limitations of independent claim 195. As such, these references fail to establish a prima facie case of obviousness, as per §2142 of the MPEP.

Accordingly, the Examiner is respectfully requested to withdraw the rejection to independent claim 195.

Claims 196-199 depend from independent claim 195, and as such incorporate by reference all the limitations contained therein, including the two above-emphasized limitations which have been shown to be absent from both Elwahab and Bassett et al. As such, the Applicant respectfully submits that claims 196-199 are also novel and non-obvious as being dependent upon an allowable base claim.

#### **Claim 200**

For ease of reference, independent claim 200 has been reproduced herein below.

- A spa control system comprising:
- A) a interface signal converter;

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- B) a spa controller in communication with said interface signal converter, **said spa controller being adapted for controlling a set of spa components at least in part on the basis of software installed on said spa controller;**
- C) **said interface signal converter being operative for:**
  - establishing a communications link with a remote computer;
  - **receiving information conveying software components over the communications link;**
  - transmitting signals conveying the software components to the spa controller;
- D) **said spa controller being operative for:**
  - receiving signals conveying the software components from said interface signal converter;
  - **updating software already installed on said spa controller at least in part on the basis of the software components received from interface signal converter.**

For the same reasons as those presented above with respect to independent claim 155, the Applicant respectfully submits that neither Elwahab nor Bassett et al. disclose, teach or suggest the above emphasized limitations of independent claim 200.

More specifically, neither Elwahab nor Bassett et al. disclose "a spa controller adapted for controlling a set of spa components at least in part on the basis of software installed on said spa controller" [emphasis added]. As described above, Elwahab doesn't disclose anything to do with a spa control system, and as such cannot disclose the above spa components. Furthermore, Bassett et al. simply discloses that it is known to have dedicated devices for controlling a spa pool heater. Nowhere in Bassett et al. is there anything disclosed about "a set of spa components". As such, neither Elwahab nor Bassett et al. disclose the above-emphasized limitation of independent claim 200.

Secondly, for the same reasons as those presented above, neither of the references discloses "updating software already installed on said spa controller at least in part on the basis of the software components received from interface signal converter" [emphasis added]. As such, these references fail to establish a prima facie case of obviousness, as per §2142 of the MPEP.



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Accordingly, the Examiner is respectfully requested to withdraw the rejection to independent claim 200.

Claims 201-215 depend from independent claim 200, and as such incorporate by reference all the limitations contained therein, including the two above-emphasized limitations which have been shown to be absent from both Elwahab and Bassett et al. As such, the Applicant respectfully submits that claims 201-215 are also novel and non-obvious as being dependent upon an allowable base claim.

#### **Claim 216**

For ease of reference, independent claim 216 has been reproduced herein below.

A computer readable storage medium including a program element suitable for execution by a computing apparatus for implementing a system for monitoring a spa controller, the computing apparatus including a memory unit and processor operatively connected to the memory unit, said program element when executing on said processor being operative for:

- a) establishing a communications link with a spa controller;
- b) transmitting information conveying software components over the communications link, **the software components being adapted to cause software already installed on the spa controller to be updated.**

For the same reasons as those presented above with respect to Independent claim 155, the Applicant respectfully submits that neither Elwahab nor Bassett et al. disclose, teach or suggest the above emphasized limitation of independent claim 216. As such, these references fail to establish a prima facie case of obviousness, as per §2142 of the MPEP.

Claims 217-219 depend from Independent claim 216, and as such incorporate by reference all the limitations contained therein, including the above-emphasized limitation which has already been shown to be absent from both Elwahab and Bassett et al. As such, the Applicant respectfully submits that claims 217-219 are also novel and non-obvious as being dependent upon an allowable base claim.

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ii) Claims 158, 159, 201 and 202

In the Office Action, the Examiner has rejected claims 158, 159, 201 and 202 under 35 USC §103(a) as being unpatentable over Elwahab, in view of Bassett et al. in further view of U.S. Patent 5,877,957 (hereafter to be referred to as Bennett)

Claims 158 and 159 are dependent on independent claim 155, and as such incorporate by reference all the limitations contained therein, including the below limitations which have already been shown to be absent from both Elwahab and Bassett et al.

An interface signal converter for:

- receiving communication signals conveying software components over the communications link, said software components comprising updates to software already installed on said spa controller;
- communicating said software components to said spa controller for updating the software installed on said spa controller;

The Applicant further submits that these limitations are also absent from Bennett. Bennett relates to an automation system for programming appliances. However, nowhere does Bennett disclose receiving signals conveying software components over a communication link and then "communicating said software components to said spa controller for updating the software installed on said spa controller". Accordingly, Bennett does not disclose the above limitation of independent claim 155.

Since neither Elwahab, Bassett et al. nor Bennett disclose the above limitation of independent claim 155, and since claims 158 and 159 incorporate by reference all the limitations contained therein, the Applicant respectfully submits that the combination of these references fails to establish a *prima facie* case of obviousness as per §2142 of the MPEP.

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The Examiner is respectfully requested to withdraw his rejection to dependent claims 158 and 159.

Claims 201 and 202 are dependent on independent claim 200, and as such incorporate by reference all the limitations contained therein, including the below limitation which has already been shown to be absent from both Elwahab and Bassett et al.

**said spa controller being operative for:**

- receiving signals conveying the software components from said interface signal converter;
- **updating software already installed on said spa controller at least in part on the basis of the software components received from interface signal converter.**

For the same reasons as those presented above, the Applicant respectfully submits that this limitation is also absent from Bennett. Bennett does not teach updating software already installed on an appliance based on software received from an interface signal converter. Accordingly, Bennett does not disclose the above limitation of independent claim 200.

Since neither Elwahab, Bassett et al. nor Bennett disclose the above limitation of independent claim 200, and since claims 201 and 202 incorporate by reference all the limitations contained therein, the Applicant respectfully submits that the combination of these references fails to establish a *prima facie* case of obviousness as per §2142 of the MPEP.

The Examiner is respectfully requested to withdraw his rejection to dependent claims 201 and 202.

iii) Claims 164-167 and 207-209

In the Office Action, the Examiner has rejected claims 164-167 and 207-209 under 35 USC §103(a) as being unpatentable over Elwahab, in view of Bassett et

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al. in further view of U.S. Patent 6,459,959 (hereafter to be referred to as Williams et al.)

Claims 164-167 are dependent on independent claim 155, and as such incorporate by reference all the limitations contained therein, including the below limitations which have already been shown to be absent from both Elwahab and Bassett et al.

**An interface signal converter for:**

- receiving communication signals conveying software components over the communications link, said software components comprising updates to software already installed on said spa controller;
- communicating said software components to said spa controller for updating the software installed on said spa controller;

The Applicant further submits that this limitation is also absent from Williams et al. Williams et al relates specifically to an irrigation controller that includes a plurality of pin sets for controlling a plurality of irrigation stations. Nowhere does Williams et al disclose receiving signals conveying software components over a communication link and then "communicating said software components to said spa controller for updating the software installed on said spa controller". Accordingly, Williams does not disclose the above limitation of independent claim 155.

Since neither Elwahab, Bassett et al. nor Williams et al. discloses the above limitation of independent claim 155, and since claims 164-167 incorporate by reference all the limitations contained therein, the Applicant respectfully submits that the combination of these references fails to establish a *prima facie* case of obviousness as per §2142 of the MPEP.

The Examiner is respectfully requested to withdraw his rejection to dependent claims 164-167.

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Claims 207-209 are dependent on independent claim 200, and as such incorporate by reference all the limitations contained therein, including the below limitation which has already been shown to be absent from both Elwahab and Bassett et al.

**said spa controller being operative for:**

- receiving signals conveying the software components from said interface signal converter;
- **updating software already installed on said spa controller at least in part on the basis of the software components received from interface signal converter.**

For the same reasons as those presented above, the Applicant respectfully submits that this limitation is also absent from Williams et al. More specifically, Williams et al. does not teach updating software already installed on an appliance based on software received from an interface signal converter. Accordingly, Williams et al. does not disclose the above limitation of independent claim 200.

Since neither Elwahab, Bassett et al. nor Williams et al. disclose the above limitation of independent claim 200, and since claims 207-209 incorporate by reference all the limitations contained therein, the Applicant respectfully submits that the combination of these references falls to establish a *prima facie* case of obviousness as per §2142 of the MPEP.

The Examiner is respectfully requested to withdraw his rejection to dependent claims 207-209.

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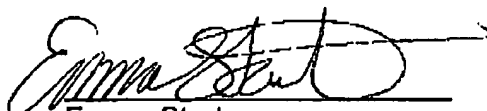
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## II. CONCLUSION

In view of the above, it is respectfully submitted that all of claims 155, 158-172, 180-183, 185-187, 190-219 are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance of claims 155, 158-172, 180-183, 185-187, 190-219 at an early date is solicited.

If the claims of the application are not considered to be in full condition for allowance, for any reason, the Applicant respectfully requests the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims or in making constructive suggestions so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,



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